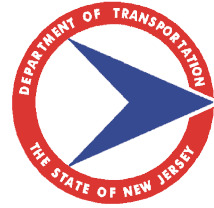


## *New Jersey Department of Transportation*

1035 Parkway Avenue, PO Box 600, Trenton, New Jersey 08625-0600



# *Baseline Document Change Announcement*

*AASHTO 2001 related changes to  
NJDOT Design Manual - Roadway (Metric)*

**BDC02MR-4**

**March 28, 2003**

**SUBJECT: Revisions to the 2001 NJDOT Design Manual - Roadway (Metric) to implement AASHTO 2001 "A Policy on Geometric Design of Highways and Streets" requirements**

AASHTO has issued an updated policy on Geometric Design of Highways and Streets. The Department adopted this policy in its entirety for the design of projects. As a result, the 2001 Roadway Design Manual has been revised to reflect the changes. In addition, several other minor editorial corrections have also been made. The revised pages shall be replaced as instructed below:

<b>Table of Contents</b>	<b>Replace</b>	<b>Page TC-1 &amp; TC-2</b>	<b>with New</b>	<b>Page TC-1 &amp; TC-2</b>
<b>Section 1</b>	<b>Replace</b>	<b>Page 1-1 &amp; 1-2 (Entire Section)</b>	<b>with New</b>	<b>Page 1-1 &amp; 1-2 (Entire Section)</b>
<b>Section 2</b>	<b>Replace</b>	<b>Page 2-5 through 2-10</b>	<b>with New</b>	<b>Page 2-5 through 2-10</b>
<b>Section 4</b>	<b>Replace</b>	<b>Page 4-1 through 4-29 (Entire Section)</b>	<b>with New</b>	<b>Page 4-1 through 4-30 (Entire Section)</b>
<b>Section 6</b>	<b>Replace</b>	<b>Page 6-1 through 6-16, 6-21 through 6-24, 6-29 through 6-32, 6-37 &amp; 6-38</b>	<b>with New</b>	<b>Page 6-1 through 6-16, 6-21 through 6-24, 6-29 through 6-32, 6-37 &amp; 6-38</b>
<b>Section 7</b>	<b>Replace</b>	<b>Page 7-7, 7-8, &amp; 7-15 through 7-18</b>	<b>with New</b>	<b>Page 7-7, 7-8, &amp; 7-15 through 7-18</b>
<b>Section 8</b>	<b>Replace</b>	<b>Page 8-1 through 8-4, 8-9, 8-10, 8-23 through 8-26, &amp; 8-39 through 8-41</b>	<b>with New</b>	<b>Page 8-1 through 8-4, 8-9, 8-10, 8-23 through 8-26, &amp; 8-39 through 8-41</b>
<b>Section 13</b>	<b>Replace</b>	<b>Page 13-1 &amp; 13-2</b>	<b>with New</b>	<b>Page 13-1 &amp; 13-2</b>
<b>Section 14</b>	<b>Replace</b>	<b>Page 14-15 &amp; 14-16</b>	<b>with New</b>	<b>Page 14-15 &amp; 14-16</b>

The pages containing revised text bear this new BDC number (BDC02MR-4) on top right-hand corner, other pages are being reissued for continuity.

A summary of the changes to each Section is as follows

### **Section 1**

- Subsection 1-01; revised list of design exception elements to agree with current Department practice and referenced publication dates have been revised
- Subsection 1-03; publication dates for several of the referenced publications have been revised and two additional reference publications have been added

### **Section 2**

- Subsection 2-03.3; revised definition of Design Speed
- Table 2-2; design vehicles dimensions have been revised
- Subsection 2-03.3 and Table 2-2; referenced publication dates have been revised

### **Section 3**

- No changes

### **Section 4**

- Table 4-1; the desirable lengths for stopping sight distance have been eliminated. Values for the minimum stopping and minimum passing sight distance have been revised
- Subsection 4-02.2; for passing sight distance the height of eye has been revised from 1070 mm to 1080 mm, and the height of object has been revised from 1300 mm to 1080 mm
- Subsection 4-02.3; height of object has been revised from 150 mm to 600 mm
- Subsection 4-02.5; object height changed from 150 mm to 600 mm, and height at midpoint changed from 610 mm to 825 mm
- Figure 4-A; revised to reflect new stopping sight distances
- Figures 4-B, and 4-C; several superelevation values have been revised
- Subsection 4-03.2.2; discussion on superelevation transition revised to agree with AASHTO. Three new tables (Tables 4-2, 4-3, & 4-4) have been added
- Table 4-2; renumbered to 4-5. Minimum radius added for 70 km/h low speed urban highways,  $e=6\%$
- Figure 4-D; notes 2 and 3 revised to reflect change in superelevation transition
- Table 4-3 and 4-4; renumbered to 4-6 and 4-7 respectively
- Table 4-5; renumbered to 4-8. Values for 120 km/h have been added to Rural Land Service Highways and Freeways
- Subsection 4-04.5; height of object revised from 150 mm to 600 mm, drainage consideration for crest vertical curves revised from 105 km/h to 100 km/h. Eye height and object height at intersection revised from 1070 mm to 1080 mm and 1300 mm to 1080 mm respectively. Table 4-6; renumbered to 4-9
- Figures 4-I and 4-J; revised to reflect new stopping sight distance criteria, and value for 120 km/h added
- Subsection 4-05; references to AASHTO "Green Book" figures have been revised
- Subsections 4-02.3, 4-04.1, and 4-05; referenced publication dates have been revised

## **Section 5**

- No change

## **Section 6**

- Subsection 6-02; referenced publication date has been revised
- Subsection 6-03.2; revised to reflect changes to Figure 6-A and 6-B (see below). Also, minor wording change
- Subsection 6-03.3; minor wording change
- Figure 6-A; new figure
- Figure 6-B; deleted and left blank
- Figure 6-C; revised values
- Figures 6-D through 6-I; revised dimensions and referenced publication date have been revised
- Subsection 6-05.1; AASHTO figure, table reference and referenced publication date have been revised
- Subsection 6-05.4; design vehicle category and referenced publication date have been revised
- Figure 6-O; acceleration length values and referenced publication date have been revised.
- Table 6-1; title changed, revised the desirable stopping sight distance values and removed minimum stopping sight distance requirement
- Figure 6-U; revise MUTCD section references
- Subsection 6-08.5; minor wording change

## **Section 7**

- Subsection 7-05; the length of superelevation transition reference has been revised
- Subsection 7-06.4, 7-10, and Figure 7-I; referenced publication dates have been revised

## **Section 8**

- Subsections 8-01, 8-02.3, 8-02.4, Figure 8-A, Figure 8-B, Figure 8-C, Figure 8-Q, Figure 8-R, and Figure 8-S; reference publication dates have been revised
- Figure 8-B; value for desirable clear runout area added

## **Sections 9, 10, 11, and 12**

- No change

## **Section 13**

- Subsection 13-01; referenced publications and dates have been revised

## **Section 14**

- Figure 14-A; referenced publication date has been revised

## **Instructions to Designers**

In accordance with the draft Corrective Action Notice that was recently distributed at the "New Delivery Pipelines and Revisions to Project Input and Quality Assurance Process" training (New Pipeline Training) these revisions shall apply to all new starts.

These revisions shall also apply to active projects that did not have an approved environmental document by October 1, 2002. However, where application of any element of these revisions has a negative impact on the project (increased environmental impacts, increased utility impacts, increased right of way impacts, increased construction costs, schedule delays, etc.) the designer shall document the features and the impacts in the project file, and advance the project based upon the current standards in the NJDOT design Manual-Roadway as long as the project is advertised prior to October 1, 2005. These revisions will become mandatory for all projects advertised after this date.

Project that did have an approved environmental document by October 1, 2002 shall be exempt from these revisions as long as the project is advertised before October 1, 2005.

### **Distribution to In-House Staff and Various Public Agencies**

This BDC Announcement file can be viewed or downloaded from the New Jersey Department of Transportation Web Page at  
<http://www.state.nj.us/transportation/cpm/BaselineDocuments>

This announcement is being distributed electronically to our in-house staff and various Public Agencies in accordance with the NJDOT Design Manual Roadway distribution list maintained by the Engineering Documents Unit.

Hard copies of this BDC can be acquired on a limited basis by contacting:

Engineering Documents Unit  
E&O Building, 1st Floor  
1035 Parkway Avenue, CN600  
Trenton, New Jersey 08625  
Phone:(609) 530-5587  
Fax: (609) 530-6626

### **Recommended By:**

ORIGINAL SIGNED

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Brian Strizki  
Director,  
Quality Management Services

### **Approved By:**

ORIGINAL SIGNED

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Arthur Silber  
Assistant Commissioner,  
Capital Program Management

Attachment: Revised pages of Roadway Design Manual (Metric) as listed

BJS:HVP  
☐ BDC02MR-4.doc